

### **CTAC3 PAVING PLAN – \$5M PER YEAR**

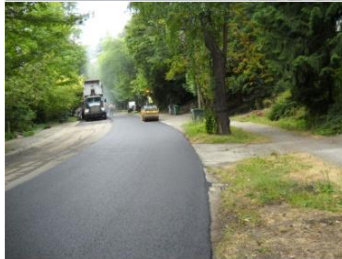
SDOT Pavement Engineering and Management Staff were asked to recommend an additional \$5 million per year in paving, to be split evenly between spot repairs performed by SDOT crews and larger CIP contract projects. This proposal was prepared in support of the current Citizens Transportation Advisory Committee's (CTAC3) efforts. The present level of investment in pavement rehabilitation, approximately \$20.3M/yr over the remaining life of the Bridging the Gap (BTG) initiative, is far below the base \$37M/yr level of investment needed to stabilize the condition of Seattle's arterial streets. Even with the additional funding proposed by the CTAC3, Seattle's main arterials will continue to deteriorate and pothole repairs will become more frequent in the coming years. Given this gap, ongoing street maintenance efforts will need to balance infrastructure renewal with the demand for safety repairs on failing streets.

#### **SDOT Crew Paving - Arterial Major Maintenance (TC365940) - \$2.5M per year**

With continued pavement deterioration forecast, SDOT recommends that \$2.5M of the additional funds be directed to spot repairs performed by City crews. This work would mainly be stop-gap or palliative in nature, designed to address on an interim basis streets requiring frequent attention from Pothole Ranger crews. Examples of crew spot paving projects are shown below.



Before and after photos of SDOT crew Arterial Major Maintenance repair at the E Marginal Way S and SR99/Duwamish Ave S crossover.



Before and after photos of SDOT crew Arterial Major Maintenance repair along the 400 and 500 blocks of Lake Washington Blvd E.

The \$2.5M/yr would deliver annually around 4.0 to 4.5 lane-miles of spot paving at 20 to 40 locations around the city via the Arterial Major Maintenance (TC365940) program.

#### **SDOT CIP Contract Paving - Arterial Asphalt and Concrete Program (TC365440) - \$2.5M per year**

Relative to the recent level of contract BTG paving, \$20M to \$30M per year, an additional \$2.5M represents around a 10% annual budget increase. This amount is unlikely to be sufficient to fund a full corridor project on its own. With this in mind, SDOT recommends using the additional \$2.5M per year to supplement existing BTG projects planned 2013 to 2015. This approach will maximize efficiency in design (e.g. stormwater detention / water quality facilities and complete streets elements) and construction (e.g. public works contract process and contractor mobilization). The recommended projects 2013 to 2015 are:

Lane-miles	Estimated Cost, 2011 Dollars	Project
6.9	\$4.4M	<p><b>Holman Rd / 15<sup>th</sup> Ave NW – Ballard Metro RapidRide Line Turnaround</b>  <i>Holman Rd / 15<sup>th</sup> Ave NW, N 85<sup>th</sup> St to N 105<sup>th</sup> St</i>  <i>Work to be packaged with planned N 105th St / Northgate Way AAC paving in 2013</i></p> <p><u>Description:</u> Holman Rd is at or near the condition where an asphalt overlay could be applied to extend the life of the existing pavement. Holman is likely to be used as part of the turnaround loop for Metro's Ballard RapidRide line. This work abuts the N 105<sup>th</sup> St / Northgate Way paving planned by the Arterial Asphalt and Concrete (AAC) program in 2013. Holman would be added to that contract. If bids were favorable, SDOT would look at adding other deteriorated sections of the RapidRide bus loop, N 100<sup>th</sup> Pl and 3<sup>rd</sup> Ave NW.</p>
1.5	\$2.2M	<p><b>Delridge Way SW</b>  <i>Delridge Way SW, SW Roxbury St to SW Henderson St</i>  <i>Work to be packaged with planned Delridge Way SW AAC paving in 2014</i></p> <p><u>Description:</u> Delridge Way SW is one of the main north-south connectors in Southwest Seattle. In 2014, Arterial Asphalt and Concrete (AAC) paving is planned on Delridge between SW Henderson St and Sylvan Way / SW Orchard St / Dumar Way SW. Additional funds could be used to extend the paving south to the White Center and SW Roxbury St. The work would attempt to salvage the outside lanes and curbs via diamond grinding and select concrete panel replacement. The center travel lanes would be rebuilt in concrete.</p>
1.3	\$3.1M	<p><b>23rd Ave E and Turner Way E</b>  <i>23rd Ave E and Turner Way E Madison St to 24<sup>th</sup></i>  <i>Work to be packaged with planned 23<sup>rd</sup> Ave AAC paving in 2015</i></p> <p><u>Description:</u> 23<sup>rd</sup> Ave E, Turner Way E, and 24<sup>th</sup> Ave E connect the Central District and Capitol Hill to the State Route 520, the University of Washington and points north. This section carries Metro's number 43 (60ft articulated trolley) and 48 (40ft) bus lines. Paving on 23<sup>rd</sup> just to the south in the Central District is already part of the BTG paving plan in 2015; this would extend that work further north.</p>

The \$2.5M/yr would deliver an average of 2.4 lane-miles of additional paving per year 2012-2015 via the Arterial Asphalt and Concrete Program (TC365440). Although bids have recently been favorable, the plans above could change with rising construction costs or additional pavement deterioration. A more comprehensive list of approximately \$120M in unfunded major paving needs is attached to this document for reference. These are projects that would become part of the paving plan if additional funds were appropriated or in 2016 when the current BTG paving plan ends.

### Additional Comments

The paving proposal above was developed using the same prioritization criteria as the current 9-yr BTG paving plan (see: <http://www.seattle.gov/transportation/paving.htm>). BTG paving places considerable emphasis on transit, freight, bicycle and pedestrian traffic in the establishment of paving priorities. The full list of criteria used to prioritize paving is: street condition, cost and cost effectiveness of treatment (weighing preservation opportunities vs. more expensive reconstruction work), volume of traffic (transit / auto / freight / bike / pedestrian), grant funding opportunities, coordination with utilities, citizen repair requests and claims, and geographic balance across the city. Examples of BTG projects complete or planned include: 2<sup>nd</sup> Ave, 4<sup>th</sup> Ave and Stewart St downtown; Dexter Ave N on Queen Anne; Ravenna Blvd; 15<sup>th</sup> Ave NE near the University of Washington; N/NE 45<sup>th</sup> St in Wallingford and the U-District; Fauntleroy Way SW in West Seattle, and others.

## Arterial Paving Projects – Alternates / Unfunded

Year	Lane-miles	2010 or Last Pavement Condition Index (PCI) / Pavement Condition Rating (PCR) and Primary Paving Action	Estimated Cost, 2011 Dollars	Project	2010 Traffic Count, Segment Max AAWDT	Transit Class	Bicycle Class (Current, Bike Master Plan, Other)	Urban Village / Pedestrian Overlay
---	5.9	39 Very Poor --- Reconstruction PCCP	\$15.5M	<b>NW Market St</b> <i>NW Market St, NW 54<sup>th</sup> St to 9<sup>th</sup> Ave NW</i>  <u>Description:</u> Market is the principal arterial through the Ballard business district. The section of pavement in the core area is in extremely poor condition, with a PCI of 18 (Serious). That section, between roughly 17 <sup>th</sup> and 24 <sup>th</sup> Avenues NW, 1.8lm, could be rebuilt for approximately \$4.8M if the project was phased. Market carries Metro's busy number 44 trolley bus (60ft articulated) line, an important east-west transit connector between Ballard, Wallingford and the University District. There are sidewalk repair needs along this corridor and that repair work would benefit pedestrians in the urban village. Sidewalk work would be coordinated with the paving. Improvements would also include new ADA compliant curb ramps at intersections.	24,100	Major (2)	Arterial Commonly Used (5) --- Not Designated, Evaluate Signals	Yes / Yes
---	4.5	42 Poor --- Reconstruction PCCP	\$12.2M	<b>24<sup>th</sup> Ave E and Montlake PI</b> <i>24<sup>th</sup> Ave E / Montlake PI, E Madison St to Montlake Bridge</i>  <u>Description:</u> 23 <sup>rd</sup> and 24 <sup>th</sup> connect the Central District and Capitol Hill to the State Route 520, the University of Washington and points north. This section carries Metro's number 43 (60ft articulated trolley) and 48 (40ft) bus lines. PCI's are as low as 30 along the route, even with some recently completed spot repairs. Paving on 23 <sup>rd</sup> just to the south in the Central District is already part of the BTG paving plan in 2015; this would complete the corridor. Improvements would also include new ADA compliant curb ramps at intersections. There are sidewalk repair needs along this corridor and that repair work would be coordinated with the paving. This project should be coordinated with the SR 520 floating bridge replacement project.	20,000	Major (2)	Not Designated (0) --- Not Designated, Evaluate Signals	Yes / Yes

## Arterial Paving Projects – Alternates / Unfunded (cont.)

Year	Lane-miles	2010 or Last Pavement Condition Index (PCI) / Pavement Condition Rating (PCR) and Primary Paving Action	Estimated Cost, 2010 Dollars	Project	2010 Traffic Count, Segment Max AAWDT	Transit Class	Bicycle Class (Current, Bike Master Plan, Other)	Urban Village / Pedestrian Overlay
---	7.9	41 Poor --- Partial Reconstruction ACP	\$9.8M	<b>California Ave SW - West Seattle Metro RapidRide Line</b> <i>California Ave SW, SW Edmunds St to Fauntleroy Way SW (PR ACP)</i> <i>California Ave SW, SW Myrtle St to Fauntleroy Way SW (MI OL ACP)</i> <i>SW Alaska St, Fauntleroy Way SW to California Ave SW (PR PCCP)</i> <i>Fauntleroy Way SW, Fauntleroy Way SW to SW Myrtle St (PR PCCP)</i>  <u>Description:</u> This section of California is part of Metro's West Seattle RapidRide bus line. We understand the RR service is to begin in 2012. The main pavement segment on California is currently in very poor condition, in need of rehabilitation, with PCI values as low as 28. The main section of California Ave SW, from Fauntleroy Way SW to SW Edmunds St, 3.9lm, could be partially reconstructed in asphalt for around \$4.8M if the project was broken into smaller segments. Alaska is currently in serviceable condition, but structural distress indicates the street may deteriorate rapidly with bus traffic. Fauntleroy should be overlaid. Paving improvements will include new ADA compliant curb ramps at intersections. There are sidewalk repair needs south from the West Seattle Junction. Sidewalk work to address tree root uplifts and other defects would be coordinated with the paving project. Signal improvements would be coordinated. Fauntleroy might be used as an alternate RapidRide route during construction.	California 12,600 --- Fauntleroy 43,700	Major (2)	Not Designated (0) --- Sharrow, Evaluate Signals --- Cycle track was under consideration	Yes / Yes
---	2.2	54 Poor --- Reconstruction PCCP	\$5.8M	<b>3<sup>rd</sup> Ave - Downtown</b> <i>3<sup>rd</sup> Ave NW, Virginia St to Cedar St</i>  <u>Description:</u> This section of 3 <sup>rd</sup> Ave was overlaid in 2006 to keep it serviceable through the transit tunnel and viaduct projects. Bus traffic has already caused significant deterioration of the pavement. It should be rebuilt in concrete, as other sections of 3 <sup>rd</sup> , to accommodate the heavy bus use. This work might be packaged with James St in 2015 or used as an alternate if bus traffic is moved from James to Yesler.	8,300	Principal (1)	Not Designated (0) --- Not Designated, Evaluate Signals	Yes / No

## Arterial Paving Projects – Alternates / Unfunded (cont.)

Year	Lane-miles	2010 or Last Pavement Condition Index (PCI) / Pavement Condition Rating (PCR) and Primary Paving Action	Estimated Cost, 2010 Dollars	Project	2010 Traffic Count, Segment Max AAWDT	Transit Class	Bicycle Class (Current, Bike Master Plan, Other)	Urban Village / Pedestrian Overlay
---	8.1	50 Poor --- Reconstruction PCCP, Mill & Overlay ACP	\$15.9M	<b>Broadway - Capitol Hill / First Hill ST Streetcar Line Paving</b> <i>Broadway, Yesler Way to E Pine St (RC PCCP)</i> <i>Broadway, E Pine St to Olive Way (MI OL ACP)</i> <i>S Jackson St, 4<sup>th</sup> Ave to 12<sup>th</sup> Ave (PR PCCP)</i>  <u>Description:</u> These segments are part of planned streetcar route connecting Sound Transit North Link Capitol Hill Station, First Hill, and the International District. Broadway is in poor condition along this route, in particular between E Pine St and Yesler (PCI of 35, Very Poor). The section between E Pine St and E Olive Way is in better condition (PCI is 74), but some overlay work is anticipated at minimum to match streetcar (as occurred on Westlake). Concrete work should be done on Jackson (PCI 59, Fair) to match the streetcar tracks. Work should be packaged and executed with streetcar contract if possible.	Broadway 23,500 --- Jackson 13,600	Minor(3), Major (2)	Arterial Commonly Used (5) --- Sharrow, Bicycle Lane, Evaluate Signals --- Functions with streetcar (?)	Yes / Yes
---	6.2	37 Very Poor --- Reconstruction ACP	\$13.2M	<b>Rainier Ave S</b> <i>Rainier Ave S, City Limits to 57<sup>th</sup> Ave S</i>  <u>Description:</u> The southern section of Rainier has bicycle lanes and is designated as a major transit street. Some recent spot repairs have improved the condition of this street but there are large sections in bad shape (the PCI is as low as 18 / Very Poor). Rainier generates citizen complaints and requires frequent attention from pothole crews. The paving project would install new ADA curb ramps at intersections.	18,000	Major (2)	Existing Bicycle Lane (1) --- Existing Bicycle Lane, Signed Bicycle Route	Yes / No

## Arterial Paving Projects – Alternates / Unfunded (cont.)

Year	Lane-miles	2010 or Last Pavement Condition Index (PCI) / Pavement Condition Rating (PCR) and Primary Paving Action	Estimated Cost, 2010 Dollars	Project	2010 Traffic Count, Segment Max AAWDT	Transit Class	Bicycle Class (Current, Bike Master Plan, Other)	Urban Village / Pedestrian Overlay
---	15.5	51 Poor --- Mill & Overlay ACP	\$9.8M	<b>Sand Point Way NE and NE 125<sup>th</sup> / Roosevelt / 130<sup>th</sup> St</b> <i>Sand Point Way NE, NE 77<sup>th</sup> St to NE 125<sup>th</sup> St (MI OL ACP)</i> <i>NE 125<sup>th</sup> / Roosevelt / 130<sup>th</sup> St, Sand Point Way NE to Interstate 5 (MI OL ACP)</i>  <u>Description:</u>  Improvements to the shoulder along Sand Point Way NE have been identified as a priority by SDOT Traffic. This corridor is a designated major transit street and is identified for improvements in the Bicycle Master Plan. Projecting into the future, it is hard to determine what kind of rehabilitation will be possible. We anticipate parts of Sand Point and 125 <sup>th</sup> /130 <sup>th</sup> /Roosevelt are currently sound enough where an asphalt overlay could be applied. Costs will rise (to approximately \$33M) if the pavement deteriorates to the point where reconstruction is required or if roadway reconfiguration / reconstruction is desired.	Sand Point 9,900 --- NE 125 <sup>th</sup> 18,000 --- Roosevelt 18,400	Major (2)	Arterial Commonly Used (5) --- Paved Shoulder, Sharrows, Bicycle Lane, Wide Outside Lane, Evaluate Signals	Yes / Yes
---	4.9	39 Very Poor --- Reconstruction PCCP	\$13.1	<b>10<sup>th</sup> Ave E and Broadway</b> <i>10<sup>th</sup> Ave E, E Roy St to E Boston St (RC PCCP)</i> <i>Broadway, Olive Way to E Roy St (RC PCCP)</i>  <u>Description:</u> These sections of 10 <sup>th</sup> Ave E and Broadway carry Metro's busy number 49 (60 ft articulated) trolley bus line. Bike lanes were recently added to the segment. 10 <sup>th</sup> is currently in need of reconstruction (PCI of 26, Very Poor). Rebuilding the street with a long lived concrete section would benefit a large number of bicyclists and transit users. Although in currently in better condition than 10th, paving the northern portion of Broadway (PCI 66, Fair) should be planned with this work. Improvements would also include new ADA compliant curb ramps at intersections.	13,000	Major (2)	Climbing Lane and Sharrows (2) --- Sharrows, Evaluate Signals	Yes / Yes

## Arterial Paving Projects – Alternates / Unfunded (cont.)

Year	Lane-miles	2010 or Last Pavement Condition Index (PCI) / Pavement Condition Rating (PCR) and Primary Paving Action	Estimated Cost, 2010 Dollars	Project	2010 Traffic Count, Segment Max AAWDT	Transit Class	Bicycle Class (Current, Bike Master Plan, Other)	Urban Village / Pedestrian Overlay
---	8.0	43 Poor --- Reconstruction PCCP	\$21.2M	<b>E Marginal Way S and Alaskan Way S</b> <i>E Marginal / Alaskan Way S, S Idaho St to Royal Brougham Way S (RC PCCP)</i> <i>Duwamish Ave S, E Marginal Way S to S Spokane St (RC PCCP)</i>  <u>Description:</u> This street is a critical connector for bicyclists commuting from West Seattle to Downtown, and rebuilding it is recommended in the Bicycle Master Plan. It is also a major truck street serving the Port of Seattle. Recent spot repairs have improved the condition of the bike lane. However, those are not long term fixes. It is expected that hauling along this street for the demolition of the Alaskan Way Viaduct and construction of a replacement will further damage the pavement. It would be advisable to time this project toward the end of the Viaduct work. Improvements should include dedicated bike facilities and address rail crossings along the route. Paving would include ADA curb ramps as needed.	10,200	Minor (3)	Existing Bicycle Lane (1) --- Existing Bicycle Lane, Signed Bicycle Route, Evaluate Signals	No / No
---	2.6	27 Very Poor --- Reconstruction ACP	\$5.5M	<b>E Union St</b> <i>E Union St, E Madison St to 23<sup>rd</sup> Ave E</i>  <u>Description:</u>  Union carries Metro's number 2 trolley (40 ft) bus line, connecting the Central District to Capitol Hill, First Hill, Downtown and Queen Anne. It is also a designated bicycle route with bike lanes. Improvements would also include new ADA compliant curb ramps at intersections. There are sidewalk repair needs along this corridor and that work would be coordinated with the paving.	9,600	Minor (3)	Existing Bicycle Lane (1) --- Bicycle Lane, Signed Bicycle Route, Evaluate Signals	Yes / Yes